

HOLSTIANTHUS, A NEW GENUS OF RUBIACEAE FROM THE GUAYANA HIGHLAND

Up to the present time 11 genera of Rubiaceae are known to be endemic to the flora of the Guayana Highland. They include the following: *Cephalodendron*, *Maguireocharis*, and *Neblinathamnus* (Steyermark, 1964, 1972) from Cerro de la Neblina; *Aphanocarpus* Steyermark (1965) from sandstone table mountains and adjacent plateaus of Estado Bolívar; *Coryphothamnus* Steyermark (1965) from Auyan-tepui; *Duidania* Standley (1931) from the sandstone mountains of Duida, Huachamacari, and Marahuaca; *Chondrococcus* Steyermark (1972) [now known as *Coccochondra* Rauschert (1982)] from the Serranía Parú; *Maguireothamnus* Steyermark (1964) from various table mountains of the Venezuelan Guayana; *Merumea* Steyermark (1972) from Cerro Sipapo of the Venezuelan Guayana and the Merume Mountains of Guyana; *Pagameopsis* Steyermark (1965) from various tepuis of the Venezuelan Guayana and adjacent northern Brazil; and *Chalepophyllum* Hook. f. (1873a, 1873b) from southeastern Venezuelan Guayana and adjacent Guyana. Although such genera as *Gleasonia* Standley (1931), *Platycarpum* Humb. & Bonpl. (1809), *Sipaneopsis* Steyermark (1967), and *Dendrosipanea* Ducke (1935) show the greater part of their diversity within the Guayana Highland, they may also occur in lowland savannas, as in the case of *Sipaneopsis* and *Dendrosipanea*, or in Amazonian Colombia and Brazil.

Holstianthus Steyermark, gen. nov. TYPE: *H. barbigularis* Steyermark.

Inflorescentia 1–3-flora plerumque axillaris pedunculata basi bibracteata. Calycis lobi aliquantum inaequales persistentes. Corollae extus salmoneo-rubrae, lobis 5 in aestivatione contortis, tubi intus orificio dense barbato pilis luteis elongatis exsertis munito. Ovarium 2-loculare, ovulis numerosis in placenta axillari insidentibus. Fructus non dehiscens siccus osseus, seminibus numerosis exalatis aliquantum angulatis subcompressis, pagina minute cellulosa. Frutex. Stipulae interpetiolares persistentes basi subtriangulares in appendicem subulatam abrupte desinentes. Genus monotypicum.

The genus is named for Bruce Holst, who collected the type material and served as botanical assistant on the expedition to Cerro Marahuaca.

Holstianthus barbigularis Steyermark, sp. nov.

TYPE: Venezuela. Territorio Federal Amazonas: Depto. Atabapo, forested steep sandstone SE-facing slopes and bluffs, above branch of Caño Negro, Cerro Marahuaca, S-central portion, downstream from "Sima Camp," 3°43'N, 65°31'W, 1,220–1,350 m, 23–24 Feb. 1985, *Steyermark & Holst 130637* (holotype, MO; isotype, VEN).

PARATYPE: same locality and date, *Steyermark & Holst 130664* (MO, VEN).

Frutex 0.6–2 metralis; foliis lanceolato-oblongis vel oblongo-ellipticis apice acutis vel acuminatis basi subacutis vel obtusis 4.5–11.5 cm longis 1.5–3.5 cm latis, subtus hirtellis; inflorescentia plerumque axillari, floribus pedicellatis, pedicellis 4–12 mm longis dense cano-tomentosis; bracteis sub pedicellis ovatis acutis vel acuminatis 8–18 mm longis 4–6 mm latis; bracteis sub pedunculo majoribus; calycis lobis 5 imbricatis, 3 exterioribus majoribus late lanceolatis vel ovato-lanceolatis acuminatis 2–2.5 cm longis 8–9 mm latis extus strigillosis intus glabris, 2 interioribus lanceolatis 2–2.5 cm longis 8–9 mm latis; corolla infundibuliformi 6.3 cm longa, extus glabra, tubo 2.3 cm longo 3.5–4 mm lato intus glabro, limbo intus orificio dense barbato aliter glabro, lobis ovato-lanceolatis acuminatis 10 mm longis 5 mm latis; staminibus 5 superne insertis, antheris 4.5–5 mm longis; fructu endocarpio tenui 0.2 mm crasso osseo mesocarpio 0.5 mm crasso instructo; seminibus oblongo-subellipticis 0.75–1.5 mm longis.

Shrub 0.6–2 m tall; young stems densely hirtellous. Stipular sheath subdeltoid, 1–3 mm long, 2–4 mm wide, densely strigillose-hirtellous without, abruptly terminating in a subulate, strigillose appendage 3–7 mm long, on sterile leafy shoots longer. Leaves subcoriaceous, lanceolate-oblong or oblong-elliptic, acute to acuminate at apex, subacute to obtuse at base, 4.5–11.5 cm long, 1.5–3.5 cm wide, glabrous above except strigose along midrib and on some lateral nerves; petioles 1–4 mm long or the uppermost leaves subsessile, densely strigillose. Inflorescence terminal or axillary, 1–3-flowered, 2-bracteate, pedunculate; peduncle divaricate, 7–14 mm long, the upper ones shorter, densely canescent. Bracts subtending each pedicel ovate, acute to acuminate, 8–18 mm long, 4–6 mm wide, glabrous above, sparsely hirtellous below, minutely ciliate on margins; bracts subtending peduncle larger, 18–22 mm long, 8–10 mm wide. Calyx

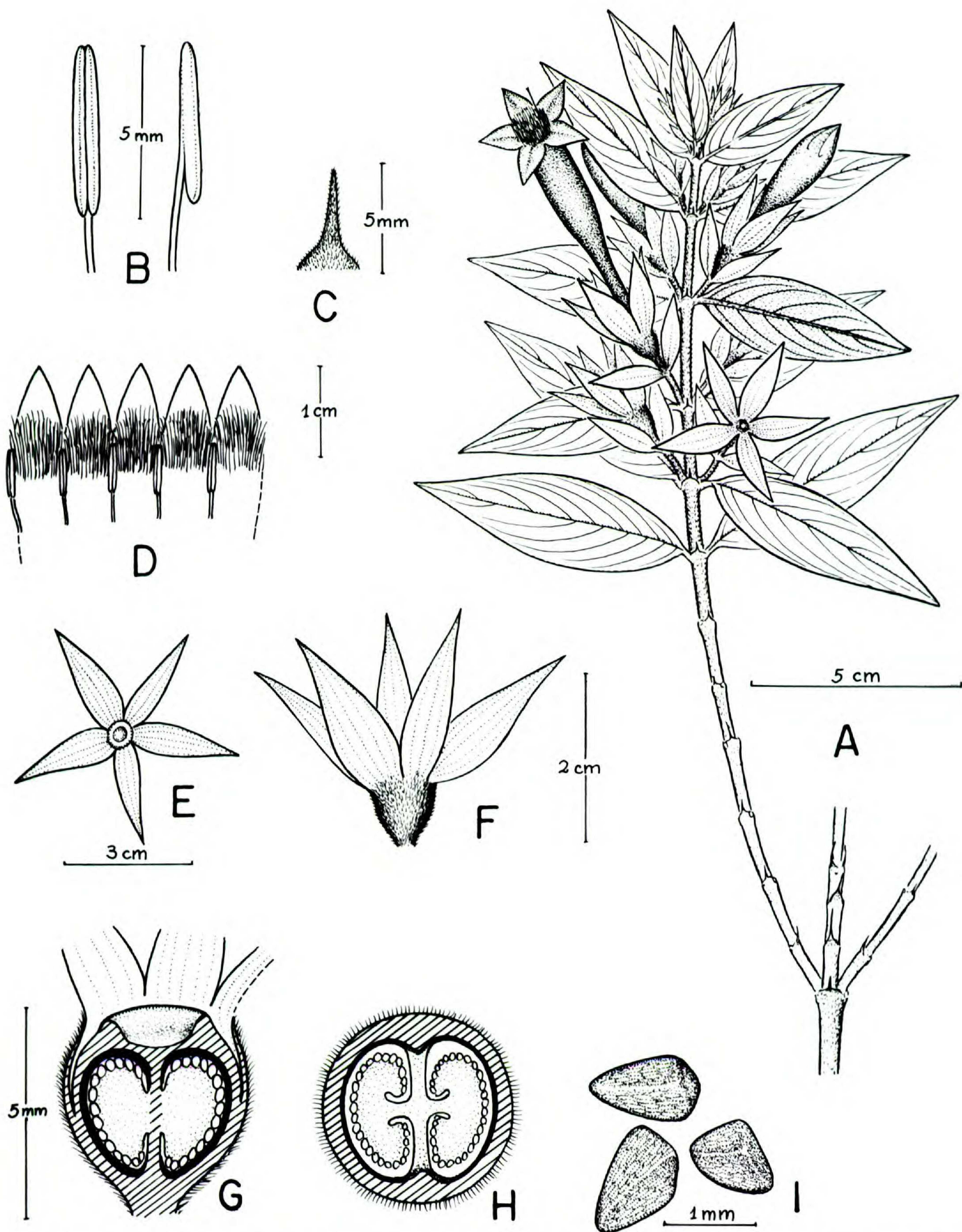


FIGURE 1. *Holstianthus barbigularis* Steyermark.—A. Habit.—B. Stamen, abaxial and lateral views.—C. Stipule.—D. Interior of upper portion of corolla limb and lobes.—E. Calyx lobes and disk, seen from above.—F. Calyx and hypanthium.—G. Vertical section through ovary.—H. Transverse section through ovary.—I. Seeds.

lobes 5, imbricate, persistent, somewhat unequal, 3 outer ones broadly lanceolate to ovate-lanceolate, acuminate, 2–2.5 cm long, 8–9 mm wide, finely longitudinally 5-nerved, moderately substrigillose without, glabrous within, 2 inner lobes lanceolate, 2–2.5 cm long, 8–9 mm wide. Hypanthium subcampanulate, 3–6 mm long, 5–7 mm wide, densely gray-hirtellous without. Corolla salmon-red, infundibuliform, 6.3 cm long, glabrous without, tube 2.3 cm long, 3.5–4 mm wide, expanded above into a limb 3 cm long, 10 mm wide at the summit, densely barbate within at the throat with elongate yellow hairs 8–10 mm long exserted beyond the orifice, lobes equal, ovate-lanceolate, acuminate, 10 mm long, 5 mm wide at the base. Stamens inserted in the upper part of the limb; anthers linear, dorsifixed, rounded at both ends, attaining summit of orifice but not exserted, 4.5–5 mm long, glabrous; filaments 3–4 mm long, glabrous, inserted 7–8 mm below orifice. Disk fleshy, annular, 5 mm across. Style filiform, 7–7.5 mm long, glabrous; stigma lobes 2, erect; ovary 2-celled; ovules numerous, arranged on all sides of a rounded thickened placenta, subelliptic-oblong; fruiting hypanthium 7–10 mm long, 7–8 mm wide. Fruit dry, osseous, indehiscent, the endocarp firm, thin, 0.2 mm thick; mesocarp 0.5 mm thick; seeds pale yellow-brown, somewhat angled and dorsiventrally subcompressed, subelliptic-oblong, 0.75–1.5 mm long.

The genus *Holstianthus* can be properly accommodated in the tribe *Rondeletieae* by virtue of its dry fruit, numerous, exalate or exappendiculate seeds, and contorted corolla lobes. Among most other genera of the tribe having contorted corolla lobes, it is at once separated by its indehiscent fruit. From *Sipaneopsis*, a member of the tribe with indehiscent fruit, *Holstianthus* differs in the contorted corolla lobes, numerous, subcompressed, subangulate seeds, densely barbate orifice of the corolla with elongated yellow hairs, subunequal, prominent calyx

lobes, bibracteate pedicels, large, reddish infundibuliform corolla, and mainly axillary inflorescences.

The new genus herewith described was collected on a recent expedition to a previously unexplored sector of Cerro Marahuaca in Territorio Federal Amazonas. The trip was made possible through helicopter support provided by the Terramar Foundation of Caracas, Venezuela. Grateful appreciation is hereby given to Armando and Fabian Michelangeli of the Foundation for having furnished the logistics on this expedition.

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